

REMARKS

By this Amendment, claims 1-16, 18-21, and 23-24 are amended, and claims 30-35 are newly added. Claims 5, 11, 23, and 24 have been rewritten in independent form, and claims 6, 8, and 12-15 have been amended to change their dependency. Support for the amendments to claims 1, 5, 10, 11, and 23-24 and new claims 31-35 may be found, for example, in paragraphs [0041]-[0050] of the specification, and in FIGS. 1-4. No new matter has been added. Accordingly, after entry of this Amendment, claims 1-35 will remain pending in the patent application. Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

In the Office Action, claim 4 was objected to. In response, claim 4 has been amended in the manner suggested by the Office Action. Accordingly, reconsideration and withdrawal of the objection to claim 4 are respectfully requested.

Claims 1-29 were rejected under 35 U.S.C. §102(e) based on Leung (U.S. Pat. No. 6,195,705). The rejection is respectfully traversed because the cited prior art fails to disclose, teach or suggest all of the features recited in the rejected claims.

For example, the cited prior art fails to disclose, teach or suggest a method comprising, among other things, establishing a session between one of said plurality of mobile nodes and a second party via said first access node and said first mobility entity; checking whether there is at least one second mobility entity to which the first access node can establish a connection as an alternative for the first mobility entity and which is more preferred for the first access node in respect to routing than said first mobility entity, and reacting to said checking by (A) maintaining a connection from said first access node to said first mobility entity if there is no second mobility entity which is more preferred than said first one, and (B) opening a new connection from said first access node to said second mobility entity if said more preferred second mobility entity is available, and initiating macro mobility management registration, as recited in claim 1 and its dependent claims 2-4 and 9.

Furthermore, the cited prior art fails to disclose, teach or suggest a method comprising, *inter alia*, storing in said second access node an identity of a preferred mobility entity of said second access node; checking in said second access node, in response to a movement of said one mobile node from said first access node to said second access node, whether the identity of said first mobility entity and said stored identity of said preferred mobility entity match or not, and reacting to said checking by (A) maintaining a connection

from said second access node to said first mobility entity if the identities match, and (B) closing a connection from said second access node to said first mobility entity and opening a new connection to said preferred mobility entity if said identities do not match, and initiating macro mobility management registration, as recited in claim 5 and its dependent claims 6-8.

Similarly, the cited prior art fails to disclose, teach or suggest an access device comprising, *inter alia*, a first mobility entity which is associated with said at least one first gateway node and arranged to route a connection to any one of said mobile nodes while said mobile node is registered to the first part of the access system; a mechanism which checks whether there is a second mobility entity which is more preferred in respect to routing than said first mobility entity for one of said access nodes; and a mechanism which opens a new connection from said one access node to said second mobility entity if said more preferred second mobility entity is available according to said checking, said mobile node being arranged to detect a change of attachment by means of said new connection and to initiate macro mobility management registration, as recited in claim 10 and its dependent claims 17-20.

In addition, the cited prior art fails to disclose, teach or suggest an access device comprising, *inter alia*, a first mobile entity which is associated with said at least one first gateway node and arranged to route a connection to any one of said mobile nodes while said mobile node is registered to the first part of the access system; a rerouting mechanism by which said connection initially routed via said first access node and said first mobility entity can be rerouted via said second access node in response to a movement of said one of mobile nodes to said second part of the access system; a mechanism which checks whether there is a second mobility entity which is more preferred in respect to routing than said first mobile entity; and a mechanism which opens a new connection from said second access node to said second mobility entity if said more preferred second mobility entity is available according to said checking, said mobile node comprising a mechanism which detects a change of attachment by means of said new connection and to initiate macro mobility management registration, as recited in claim 11 and its dependent claims 12-16.

Likewise, the cited prior art fails to disclose, teach or suggest an access node comprising, *inter alia*, means for checking, when a mobile node having a connection through another access node and a first mobility entity is accessing the system via said access node, whether there is another mobility entity which is more preferred in respect to routing than said first mobility entity, and means responsive to said checking means for opening a new

connection to said preferred other mobility entity if said more preferred other mobility entity is available, as recited in claim 21 and its dependent claims 22 and 25-29.

Similarly, the cited prior art fails to disclose, teach or suggest an access node comprising, *inter alia*, means for checking, in response to a movement of said mobile node from another access node to said access node whether the identity of a first mobility entity used by said other access node and said stored identity of said preferred mobility entity match or not, and a mechanism which opens a new connection to said preferred other mobile entity, if said preferred other mobile entity is available, as recited in claim 23.

Furthermore, the cited prior art fails to disclose, teach or suggest an access node comprising, *inter alia*, a mechanism which checks, in response to a movement of said mobile node from another access node to said access node whether the identity of a first mobility entity used by said other access node and said stored identity of said preferred mobility entity match or not; means for maintaining a connection to said first mobility entity if the identities match, and means for closing the connection to said first mobility entity and opening a new connection to said preferred mobility entity if said identities do not match, as recited in claim 24.

Leung merely discloses a method and apparatus for automatically backing up a home agent or a foreign agent in mobile IP. (See col. 3, lines 64-66). To this end, Leung employs a hot standby router protocol extended with a synchronization of the mobility tables between an active mobility agent and a standby mobility agent that backs up the active mobility agent. (See col. 3, lines 66-67 and col. 4, lines 1). Leung further discloses that the standby mobility agent can take the place of the active mobility agent immediately when it is predetermined that the active mobility agent should be replaced. (See col. 4, lines 17-39).

Referring to Figure 2B and as pointed out by the Office Action, Leung provides an example of a network and associated environment having two standby groups each with its own virtual Home Agent but sharing some routers/Home Agents in their standby groups. As can be seen in FIG. 2B, a local area network (LAN), segment 12 comprises four home agents 202, 204, 206, and 208 which are connected to the Internet 4 either directly or through a router R1. The mobile nodes 6 and 27 of the network segment 12 are divided into two groups 214 and 216. The home agent 206 is the active home agent for group 214 and home agent 204 is an active home agent for the group 216. The home agents 204 and 206 are also standby home agents for each other. Home agent 202 and home agent 208 are virtual emulating home agents for home agents 206 and 204, respectively. All of the home agents

can tunnel agents to registered mobile nodes but the handling of registrations is received for the active home agent in each group.

However, Leung is completely silent about a first access node through which a connection is established to a first mobility entity associated with at least one first gateway node. Thus, contrary to what is stated in the Office Action, items 214 and 216 in Figure 2 B do not refer to first and second parts of the access system (LAN). Instead, these two items refer to different groups of the mobile nodes. (See col. 8, lines 44-47).

In addition, Leung is completely silent about a first access node through which a connection is established to a first mobility entity associated with at least one first gateway node. Thus, contrary to what is stated in the Office Action, items 206 and 204 are not access nodes of the access system, but routers provided with a home agent function. (See col. 8, lines 60-67).

Furthermore, Leung is completely silent about checking whether there is at least one second mobility entity to which a first access node can establish a connection as an alternative for the first mobility entity and which is more preferred for the access node in respect to routing than said first mobility entity. In contrast to claim 1, the home agents 202, 204, 206, and 208 in Leung are directly connected to the LAN and handling the packets, and standby home agent takes a role of an active home agent only if a currently active home agent fails according to the hot standby protocol. The active home agent is changed for the respective group of mobile nodes in the entire LAN segment 12. There is no teaching or suggestion in Leung of an access node that can establish a connection to at least two mobile entities one of which is more preferred for the specific access node in respect to routing than the other one(s).

Similarly, Leung makes no mention about reacting to said checking by maintaining a connection from said first access node to said mobility entity if there is no second mobility entity which is more preferred than said first one. There is no access node for connection between the access node and a mobility entity in Leung. Therefore, no such connection can be maintained.

Likewise, Leung makes no mention about, or even hints at, reacting to said checking by opening a new connection from said first access node to said second mobility entity if said more preferred second mobility entity is available, and initiating macromobility management registration. In Leung, there is no access node and no connection from the access node to a mobility entity.

Moreover, Leung is completely silent about the possibility of storing in said second access node an identity of a preferred mobility entity of said second access node; checking in said second access node, in response to a movement of said one mobile node from said first access node to said second access node, whether the identity of said first mobility entity and said stored identity of said preferred mobility entity match or not; reacting to said checking by maintaining a connection from said second access node to said first mobility entity if the identity is match, and closing a connection from said second access node to said first mobility entity and opening a new connection to said preferred mobility entity if said identities do not match, and initiating macromobility management registration. In Leung, a standby home agent takes the role of an active home agent only if the currently active home agent fails according to the hot standby protocol.

It is also respectfully submitted that Leung fails to teach or suggest any packet protocol contexts.

For at least these reasons, it is respectfully submitted that Leung cannot anticipate claims 1-29. Accordingly, reconsideration and withdrawal of the rejection of claims 1-29 under 35 U.S.C. §102(e) based on Leung are respectfully requested.

New claims 30-35 are presented to recite additional features of the invention. Claims 30-35 also define patentable subject matter over the cited prior art for at least the same reasons given above related to claims 1-29 and for the additional features recited therein. Therefore, it is respectfully submitted that claims 30-35 are in condition for allowance.

Applicants have addressed the Examiner's rejection and objection and respectfully submit that the application is in condition for allowance. A notice to the effect is earnestly solicited.

If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

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Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Lair', is written over the printed name of Christophe F. Lair.

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